

## REMARKS

### REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-24 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,491,823 issued to Ruttenberg (*Ruttenberg*). Applicant submits claims 1-24 are not anticipated by *Ruttenberg* for at least the reasons set forth below.

Claim 1 recites, in part, identifying a pipeline control hazard in a sequence of instructions. *Ruttenberg* is cited as teaching these limitations. However, *Ruttenberg* is directed to a loop scheduler that searches for an optimal loop schedule for executing a particular instruction loop in a target computer. See Abstract. *Ruttenberg* is not concerned with pipeline control hazards. Indeed, finding an optimal loop schedule for executing a particular instruction loop is an entirely different problem than that of reducing pipeline inefficiencies due to pipeline control hazards.

The Manual of Patent Examining Procedure ("MPEP"), in § 2131, states:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegal Bros. V. Union Oil Co. California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 869 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Thus, under 35 U.S.C. § 102, a claim is anticipated *only if* each and every element of the claim is found in the cited reference and the cited reference must show the invention in as complete detail as contained in the claim. *Ruttenberg* does not disclose identifying a pipeline control hazard in a sequence of instructions. Thus, *Ruttenberg* fails to disclose at least one limitation of claim 1. Therefore, Applicant submits claim 1 is not anticipated by *Ruttenberg*.

Independent claims 9 and 17 similarly recite identifying a pipeline control hazard in a sequence of instructions. Applicant submits claims 9 and 17 are not anticipate by *Ruttenberg* for at least the same reasons claim 1 is not anticipated.

Claims 2-8 depend from claim 1. Claims 10-16 depend from claim 9. Claims 18-24 depend from claim 17. Given that dependent claims necessarily include the limitations of the claims from which they depend, Applicant submits claims 2-8, 10-16 and 18-26 are not anticipated by *Ruttenberg* for at least the same reasons claims 1, 9 and 17 are not anticipated.

Conclusion

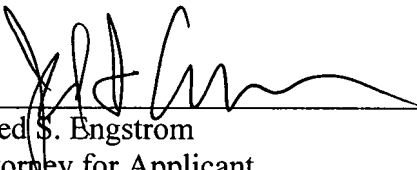
For at least the foregoing reasons, Applicant submits that the rejections have been overcome. Therefore, claims 1-26 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

**ZAFMAN, LLP**

Respectfully submitted,  
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